

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for reducing word sense ambiguities in a sentence, based on thematic prediction, said method comprising the steps of:
  - a. receiving an input sentence consisting of a sequence of part-of-speech tagged words;
  - b. creating a sequence of sense tagged words from said received sequence of part-of-speech tagged words, each of said sense tagged words having one or more senses, said senses further being theme tagged;
  - c. predicting a set of one or more probable themes associated with said created sequence of sense-tagged words;
  - d. weighting each of said one or more probable themes from said predicted set, and
  - e. reducing sense ambiguities by eliminating remotely probable senses or selecting highly ~~probably~~ probable senses ~~from~~ of said sense tagged words based on said weighted set of one or more probable themes.
2. (Original) A method for reducing word sense ambiguities in a sentence, based on thematic prediction, as in claim 1, wherein said set of predicted one or more probable themes for said input sentence belongs to a predefined set of coarse grain themes.
3. (Currently Amended) A method for reducing word sense ambiguities in a sentence, based on thematic prediction, as in claim 1, wherein said step of predicting ~~said set of~~ a set of one or more probable themes comprises the following steps:
  - [[a.]] searching a database and identifying any pre-stored words in said input sentence;

- [[b.]] assigning a theme for each of said identified pre-stored words in said input sentence;
  - [[c.]] accessing a lexicon and identifying one or more themes associated with words in said input sentence, and
  - [[d.]] outputting all of said assigned themes for each of said identified pre-stored words and said one or more identified themes associated with words in ~~for~~ said input sentence.
4. (Currently Amended) A method for reducing word sense ambiguities in a sentence, based on thematic prediction, as in claim 3, wherein said lexicon comprises a limited set of words for a given language, and each of said words are associated with one or more parts-of-speech, and each of said parts-of-speech is associated with said one or more senses, and each of said one or more senses is assigned one or more themes out of a set of pre-defined themes.
  5. (Original) A method for reducing word sense ambiguities in a sentence, based on thematic prediction, as in claim 3, wherein said database is accessible over a network.
  6. (Currently Amended) A method for reducing word sense ambiguities in a sentence, based on thematic prediction, as in ~~claim 8~~ claim 5, wherein said network is any of the following: wide area network (WAN), local area network (LAN), Internet, or wireless networks.
  7. (Currently Amended) A method for reducing word sense ambiguities in a sentence, based on thematic prediction, as in claim 1, wherein said step of weighting each of said predicted set of one or more probable themes further comprises calculating a theme score, said theme score depending on:

[[a.]] a coefficient whose value depends on ~~parts-of-speech~~ a part-of-speech associated with each of the part-of-speech tagged words ~~word~~ in said input sentence, and

[[b.]] a number of different words with a similar theme in said input sentence.

8. (Canceled)

9. (Canceled)

10. (Original) A method for reducing word sense ambiguities in a sentence, based on thematic prediction, as in claim 1, wherein said reduced sense ambiguities are used as inputs to a natural language processing system.

11. (Currently Amended) A system for reducing word sense ambiguities in a sentence, based on thematic prediction, said system comprising:

a thematic predictor receiving an input sentence comprising a sequence of part-of-speech tagged words and outputting a sequence of sense tagged words and a set of one or more predicted themes associated with said sequence of sense tagged words, each of said sense tagged words having one or more senses;

a thematic scorer weighting each of said set of one or more predicted themes, and

a thematic word sense disambiguator reducing sense ambiguities by eliminating remotely probable senses or selecting highly probable senses ~~from~~ of said sense tagged words based on said weighted set of one or more probable themes.

12. (Original) A system for reducing word sense ambiguities in a sentence, based on thematic prediction, as in claim 11, wherein said thematic predictor further searches a database and identifies any pre-stored words in said input sentence and assigns a theme for each of said identified pre-stored words in said input sentence.

13. (Original) A system for reducing word sense ambiguities in a sentence, based on thematic prediction, as in claim 12, wherein said pre-stored words and themes in said database are updated regularly.
14. (Original) A system for reducing word sense ambiguities in a sentence, based on thematic prediction, as in claim 12, wherein said database is accessible over a network.
15. (Original) A system for reducing word sense ambiguities in a sentence, based on thematic prediction, as in claim 14, wherein said network is any of the following: wide area network (WAN), local area network (LAN), Internet, or wireless networks.
16. (Original) A system for reducing word sense ambiguities in a sentence, based on thematic prediction, as in claim 11, wherein said thematic predictor further accesses a lexicon and identifies one or more themes associated with words in said input sentence.
17. (Currently Amended) A system for reducing word sense ambiguities in a sentence, based on thematic prediction, as in claim 11, wherein said lexicon comprises a limited set of words for a given language, and each of said words are associated with said one or more parts-of-speech, and each of said parts-of-speech is associated with one or more senses, and each of said one or more senses is assigned one or more themes out of a set of pre-defined themes.
18. (Original) A system for reducing word sense ambiguities in a sentence, based on thematic prediction, as in claim 11, wherein said system further comprises a morphological analyzer for stemming each word in said input sentence and annotating each of said stemmed words with at least one part of speech tag to form said sequence of part-of-speech tagged words.

19. (Currently Amended) A system for reducing word sense ambiguities in a sentence, based on thematic prediction, as in claim 11, wherein said system further comprises an interface for displaying said weighted one or more predicted themes and for displaying at least one of said eliminated remotely probable senses and said selected highly probable senses ~~sense ambiguities as a result of disambiguation.~~
20. (Original) A system for reducing word sense ambiguities in a sentence, based on thematic prediction, as in claim 11, wherein said thematic scorer further scores each of said predicted set of one or more probable themes by calculating a theme score, said theme score depending on:
- a. a coefficient whose value depends on parts-of-speech associated with each word in said input sentence, and
  - b. number of different words with a similar theme in said input sentence.
21. (Currently Amended) An article of manufacture comprising a computer user medium having computer readable code embodied therein which reduces word sense ambiguities in a sentence, based on thematic prediction, said medium comprising:
- computer readable program code receiving an input sentence consisting of a sequence of part-of-speech tagged words;
  - computer readable program code creating a sequence of sense tagged words from said received sequence of part-of-speech words, each of said sense tagged words having one or more senses, said senses further being theme tagged;
  - computer readable program code predicting a set of one or more probable themes associated with said created sequence of sense-tagged words;

computer readable program code weighting each of said predicted set of one or more probable themes, and

computer readable program code reducing sense ambiguities by eliminating remotely probable senses or selecting highly ~~probably~~ probable senses of said sense tagged words based on said weighted set of one or more probable themes.

22. (Original) An article of manufacture comprising a computer user medium having computer readable code embodied therein which reduces word sense ambiguities in a sentence, based on thematic prediction, as in claim 21, wherein computer readable code predicting said set of one or more probable themes further comprises:
- a. computer readable code searching a database and identifying any pre-stored words in said input sentence;
  - b. computer readable code assigning a theme for each of said identified pre-stored words in said input sentence;
  - c. computer readable code accessing a lexicon and identifying one or more themes associated with words in said input sentence, and
  - d. computer readable code outputting all of said assigned and identified themes for said input sentence.
23. (Currently Amended) An article of manufacture comprising a computer user medium having computer readable code embodied therein which reduces word sense ambiguities in a sentence, based on thematic prediction, as in claim 21, wherein said computer readable code further provides for an interface for displaying said weighted one or more predicted themes and for displaying at least one of said eliminated remotely probable

senses and said selected highly probable senses ~~sense ambiguities as a result of~~  
~~disambiguation.~~

24. (New) A method for reducing word sense ambiguities in a sentence, based on thematic prediction, as in claim 1, prior to said step of predicting a set of one or more probable themes, further comprising the steps of:  
  
searching a database and identifying any pre-stored words in said input sentence;  
  
concatenating the identified pre-stored words into one or more word tokens; and  
  
creating theme tagged word tokens from said one or more concatenated word tokens.
25. (New) A method for reducing word sense ambiguities in a sentence, based on thematic prediction, as in claim 24, further comprising the steps of:  
  
predicting a set of one or more probable themes associated with said theme tagged word tokens; and  
  
weighting each of said one or more probable themes from said predicted set of one or more probable themes associated with said theme tagged word tokens using coefficient associated with concatenated word tokens.
26. (New) A method for processing text of a sentence, based on thematic prediction, said method comprising the steps of:
  - a. receiving an input sentence consisting of a sequence of part-of-speech tagged words;
  - b. creating a sequence of sense tagged words from said received sequence of part-of-speech tagged words, each of said senses further being theme tagged;
  - c. predicting a set of one or more probable themes associated with said created sequence of sense-tagged words;

- d. weighting each of said one or more probable themes from said predicted set; and
  - e. refraining from reducing sense ambiguity if more than one of said predicted set of probable themes have the same weighting and if said weighting is the highest one among the set of predicted themes, otherwise reducing sense ambiguities by eliminating remotely probable senses or selecting highly probable senses of said sense tagged words based on said weighted set of one or more probable themes.
27. (New) A method for reducing word sense ambiguities in a sentence, based on thematic prediction, said method comprising the steps of:
- a. receiving an input sentence consisting of a sequence of part-of-speech tagged words;
  - b. creating a sequence of sense tagged words from said received sequence of part-of-speech tagged words, each of said senses further being theme tagged;
  - c. predicting a set of one or more probable themes associated with said created sequence of sense-tagged words;
  - d. weighting each of said one or more probable themes from said predicted set, and
  - e. reducing sense ambiguities by eliminating remotely probable senses or selecting highly probable senses from said weighted set of one or more probable themes only if the number of words in said input sentence possessing a dominant theme is equal to or greater than  $\frac{1}{4}$  the total number of words in said input sentence.